

Toxoplasmosis

This sheet is about exposure to toxoplasmosis in pregnancy and while breastfeeding. This information should not take the place of medical care and advice from your healthcare provider.

What is toxoplasmosis?

Toxoplasmosis is an infection caused by the parasite *Toxoplasma gondii*. *Toxoplasma gondii* can be found in raw or undercooked meat, raw eggs, and unpasteurized (raw) milk. Cats that eat raw meat or rodents can become infected. Once infected, the cat can shed the parasite in the feces for up to two weeks. *Toxoplasma gondii* eggs can live in cat feces or buried in soil for up to 18 months.

People can get toxoplasmosis by eating infected meat that has not been cooked properly, drinking water that is contaminated, or handling soil or cat feces that contain the parasite. Some studies suggest that toxoplasmosis can be passed to a partner during unprotected sex, including oral sex. People who have recently gotten a cat or have outdoor cats, eat undercooked meat, garden without gloves, or who have had a recent mononucleosis-type illness have an increased chance of getting toxoplasmosis.

Most adults who are infected with toxoplasmosis have no symptoms. Some people might have swelling of the lymph nodes, fever, headache, or muscle pain. In most cases, once you have gotten toxoplasmosis, you cannot get it again. There have been reports of people who have gotten infected more than one time. For example, people with a weakened immune system could develop another active toxoplasmosis infection.

What are some things I can do to lower the chance of a toxoplasmosis infection?

- Cook meat until it is no longer pink and the juices run clear. Use a food thermometer to measure the internal (inside) temperature to make sure the meat is cooked all the way through. A detailed list of temperatures and foods can be found here: <https://www.foodsafety.gov/food-safety-charts/safe-minimum-internal-temperatures>.
- Freeze meat for several days at sub-zero (below 0° F/-18°C) temperatures before cooking to greatly lower the chance of infection.
- Do not eat raw or undercooked oysters, mussels, or clams.
- Wash cutting boards, dishes, counters, and utensils with hot soapy water after any contact with raw meat, seafood, or unwashed fruits or vegetables.
- Wash hands carefully after handling raw meat, fruits, and vegetables.
- Wash all fruits and vegetables. Peeling fruits and vegetables also helps to lower the chance of exposure.
- Avoid drinking untreated water.
- Do not drink unpasteurized goat's milk.
- Wear gloves when gardening and during contact with soil or sand. Wash hands with soap and water after gardening or contact with soil or sand.
- Do not touch cat feces directly; wear gloves if changing cat litter & immediately wash hands.
- Do not feed cats raw or undercooked meat.
- Avoid stray cats, especially kittens.
- Keep outdoor sandboxes covered.

If there is a concern for you or your pregnancy, talk with your healthcare provider about available screening, testing, and treatment options.

I had toxoplasmosis in the past. Can that increase the chance of birth defects or other pregnancy-related problems?

In general, no increased risks to a pregnancy are expected when someone is infected with toxoplasmosis more than 6 months before getting pregnant. If you had toxoplasmosis in the past, you are likely immune, which means there would not be an increased chance for pregnancy complications.

I have/have had toxoplasmosis. Can it make it harder for me to get pregnant?

Based on the studies reviewed, toxoplasmosis may make it harder to get pregnant.

Does having/getting toxoplasmosis increase the chance for miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. An increased chance for miscarriage has been reported with active toxoplasmosis infection during pregnancy.

Does having/getting toxoplasmosis during pregnancy increase the chance of birth defects?

Every pregnancy starts with a 3-5% chance of having a birth defect. This is called the background risk. Toxoplasmosis infection can be passed to the fetus when the person who is pregnant has an active infection during pregnancy. The chance of transmission can change depending how far along you are in pregnancy. Babies who become infected during pregnancy have “congenital toxoplasmosis”. Some infants with congenital toxoplasmosis can have problems with the brain, eyes, heart, kidneys, blood, liver, or spleen. When the infection starts during the first trimester, the fetus has a higher chance for severe problems.

Does having/getting toxoplasmosis during pregnancy cause pregnancy-related problems?

One study suggested toxoplasmosis might increase the chance for pregnancy-related problems such as preterm delivery (birth before week 37) or low birth weight (weighing less than 5 pounds, 8 ounces [2500 grams] at birth). When toxoplasmosis infection starts late in pregnancy, the chance that the fetus will have severe problems is lower. However, the chance of passing the infection to the fetus is higher when infection happens later in pregnancy. An increased chance for stillbirth has been reported in people with active toxoplasmosis infection during pregnancy.

Does having/getting toxoplasmosis in pregnancy affect future behavior or learning for the child?

Based on the studies reviewed, infants with congenital toxoplasmosis (up to 90%) can develop problems over time, such as vision loss, seizures, hearing loss, or developmental delays. These symptoms can occur months or years after birth. Infants with congenital toxoplasmosis should be treated for the infection during the first year of life and then should be checked every so often for problems. Your healthcare team can talk with you about what screenings, tests, and treatments are right for your baby.

Breastfeeding while having toxoplasmosis:

There are no studies suggesting that *Toxoplasma gondii* is passed through breast milk. The Center for Disease Control and Prevention (CDC) recommends that people with an active toxoplasmosis infection continue to breastfeed unless they have broken skin or bleeding in the nipple area. If you suspect that the baby has any symptoms (fever or flu-like symptoms), contact the child’s healthcare provider. Be sure to talk to your healthcare provider about all of your breastfeeding questions.

If a male has toxoplasmosis, could it affect fertility (ability to get partner pregnant) or increase the chance of birth defects?

Based on the studies reviewed, toxoplasmosis may affect male fertility. Some studies suggest that toxoplasmosis can be passed to a partner during unprotected sex, including oral sex. Talk with your healthcare provider if you have had sexual contact with someone who has toxoplasmosis. For more information about paternal exposures in pregnancy, please see

the MotherToBaby fact sheet Paternal Exposures at <https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/>.

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